

OPINION

# Digitalization of government

(Second of two parts)

In last week's article, we introduced "digital" as the hot buzzword for businesses in the private sector, but not as much in the public sector or government service. We discussed how some governments have applied digital innovations and the value that these have brought to government services and to the quality of life of their citizens in general.

We will now continue our discussion on the various platforms and areas that government can consider.

## DISTRIBUTED LEDGER TECHNOLOGY AND SMART CONTRACT

[In this article, we are interchanging the terms between distributed ledger technology or DLT and Blockchain.]

Digital transformation efforts across government agencies will be ineffective if they are not integrated and connected. Both interoperability and integration are important when completing a digital road map. There must be a common platform or a series of Application Programming Interfaces (APIs) that can integrate IT systems for all government agencies. Distributed Ledger Technology (DLT), which offers a solution for the former, is an immutable database that is shared across institutions with consensus. The technology is another name for the blockchain concept that some of us may have already heard of, which is the same technology powering the bitcoin virtual currency.

DLT can be used to store information, provide timestamps and controllable security log access to see who created, submitted, and modified any information so that no one can access or change data without being logged (not even system administrators). In addition, it can also provide automation/auto execution by a smart contract.

A smart contract refers to a fully automated set of instructions that is capable of facilitating, executing, and enforcing the negotiation or performance of an agreement (i.e. contract) using blockchain technology.

Estonia is the first country to implement a blockchain named KSI to prevent any compromise to its government networks, systems, and data, while at the same time maintaining absolute data privacy. They have implemented blockchain in their legislative system (e-Law) to track who creates, revises, approves, and shows the public drafts of legislation before they eventually become laws and get published in their open legal library online.

The Estonian government also implemented blockchain in its court system (e-Court) enabling paperless proceedings. Claims can be filed online and the court clerk can immediately confirm and assign the date of the hearing with a randomly assigned judge presiding. Evidence, questions, arguments, and answers related to the case can be submitted online, and in simple cases, proceedings may also take place online (decisions and bailouts, if applicable, are posted online) without the need to personally go to a courthouse. Based on reports, this system has dramatically improved Estonia's judicial system, sped up legal proceedings, and eliminated "under-the-table" practices that may compromise the legal system.

One potential application of DLT and smart contracts for the Philippine government is in the servicing of the conditional cash transfer program (4Ps). DLT can be used to store the beneficiaries' names, amount of grant entitled, personal information, and household status. Powered together with smart contracts, it can execute regular payments to beneficiaries on its own with little to zero human intervention. At the same time, it can automatically stop the action (transfer of grants) depending on the criteria set by the government (e.g. children reaching certain age limit, deceased beneficiaries, etc.). Any government official who encodes, modifies, or deletes any data will be logged for accountability and security purposes. DLT can also reduce the chance of corrupt practices, such as creating fictitious 4Ps accounts and tampering with personal information, among others.

Second, DLT can be applied to the registration of intellectual property. The patents filed will be immutable, have a clear trail, and can indicate who registered what (even system administrators). With smart contracts, it can automatically publish the patent once it has expired.

Likewise, this feature can be applied by the Land Registration Authority (LRA) to its land ownership registry system. No official can tamper with or modify the records without being identified, and the technology may allow faster and more efficient tracking of who has the economic ownership of the property and its proper value for tax purposes. As a result, data manipulation over gratuities can be minimized and the number of court disputes may decrease.

In the area of customs, DLT, combined with analytics, can achieve seamless automated

tariff valuation and/or collection from the importers.

These are but a few of the potentially beneficial applications of DLT in government services.

## LOCAL APPLICATIONS

Several proofs of concept (POCs) and prototypes for the technology mentioned above have been created for Philippine organizations. For example, for big data and analytics, a crowdfunding platform has been developed to provide an alternative avenue for low-cost funding for entrepreneurs and SMEs in the agricultural sector. This program was designed to support SMEs (including agribusinesses), which matches SMEs with investors who are deemed a fit with their risk appetite to the nature of the enterprises (seed stage, stable cash flow, governance, etc.).

In other areas, spatial analysis has been used to simulate a path for the proposed Mindanao railway system, one of the priority infrastructure projects of the Duterte government. It considers the spatial relationships between observations and takes into account characteristics based on distance, thus allowing for a more robust and practical analysis of spatial information.

For AI, a chatbot is being developed for basic inquiries on tax information and functions. For blockchain, in the works is a prototype that will aid local government units in handling and issuing business registration permits, which can improve the process and increase efficiency and transparency.

## PHILIPPINE GOVERNMENT: CURRENT STATUS

The Philippines has attempted to embrace digital with some success. The former Commission on Information and Communications Technology (now the Department of Information and Communications Technology - DICT) established the Philippine Digital Strategy in 2011, where it envisioned the Philippines as an e-Government which provides greater efficiency and effectiveness in social services delivery, fewer opportunities for corruption, and enhanced transparency for greater citizen engagement. In addition, it aimed to achieve integration and interoperability across all government agencies.

The Bangko Sentral ng Pilipinas (BSP), National Bureau of Investigation (NBI), and the Bureau of Internal Revenue (BIR) are but some agencies that have conducted early adoption of digital tools. The BSP planned to lessen the exchange of cash transactions and promote interoperability among financial institutions by establishing the National Retail Payment System. The NBI made it a necessity for its clearance applicants to provide their details online and choose an appointment time for biometrics enrollment and picture taking. The BIR has been given the support to apply digital in all of its tax administration functions, an initiative that is now legislated in the newly-passed tax reform (TRAIN) law.

## CHALLENGES

Traditionally, government agencies are used to working independently from each other. One example is the existence of various types of government identification (ID), all of which are independent of each other. If a person uses his or her government ID to open a bank account, the bank will not necessarily know the person's tax identification number unless he or she provides it. In other words, there is no integration to provide a single identity to a citizen (e.g. a national ID that will contain all information on the individual including other government IDs) although a bill on a national ID was approved by the House (HB 6221) and is pending for Senate action in the first quarter of 2018.

An efficient and transparent government will not only benefit its citizens, but also have a significant impact on government's operations. While the immediate benefits will be the notable improvements in public service and quality of life, government should also consider that an efficient and effective digital strategy can only redound into more foreign investment.

While the government is currently enjoying sound economic fundamentals — the economy is one of the fastest-growing in the region — its effects have yet to cascade down to the common Filipino. Perhaps, in alleviating some of the pressing issues closest to the Filipino's daily life, they will be able to experience a real and measurable difference, which, in many cases, could be as simple as spending less time in road traffic or queuing for government services.

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# Consumer spending seen driving GDP growth to 7%

By Melissa Luz T. Lopez  
Senior Reporter

THE PHILIPPINE economy is expected to grow by 7% this year led by stronger consumer spending with Filipinos expected to have more take-home pay as a result of lower income tax rates, a consulting firm said.

Gross domestic product (GDP) will likely be higher in 2018, hitting the low end of the 7-8% growth target set by the government, according to the Wallace Business Forum (WBF).

"Favorable global environment... and increased government revenue from tax reform indicate a brighter outlook for the Philippine economy in 2018," WBF said in its economic outlook as published in the *Philippine Analyst*.

"There will be multiple drivers of growth."

If the growth forecast pans out, GDP will pick up from 2017's 6.7%, and would be the highest since 2013's 7.1%.

Household consumption is poised for robust growth according to the Forum's estimates, with spending growth to accelerate to 6.5% from 5.5% in 2017. Stronger spending will be fueled by higher levels of take-

home pay for a majority of Filipinos as a result of the tax reform law, which reduced the tax rates imposed on those earning less than P2 million annually.

The consultancy expects tax adjustments to add some P140 billion to household budgets.

"An additional push to private consumption will come from subdued inflationary expectations and the increased peso value of transfers to the families of overseas Filipino workers due to the modest peso depreciation," the report added.

The peso last week hit 52.34 against the dollar, which is its weakest showing in nearly 12 years. At weak rates of exchange, families receiving remittances will see their peso spending power increase.

Domestic employment prospects are likewise expected to improve, with the robust economic activity expected to open more job opportunities.

Meanwhile, investment growth is expected to pick up by 12.3% in 2018 from 9.3% previously, largely supported by increased infrastructure spending. Public spending growth is also poised to rise to 6.7% from a 6% in 2017.

The government is looking to spend P8.13 trillion for 75 big-ticket infrastructure projects until 2022 un-

der its Build, Build, Build initiatives, which will improve mass transport and the ease of doing business in the Philippines.

In particular, the construction and manufacturing sectors will remain the "growth pace-setters" in this year, the firm said. For the services sector, those engaged in banking, transport, trade and health care will see employment and revenue growth, which will likely offset weaker growth in the business process outsourcing industry.

Expansion plans among exporters will also support increased capital inflows by a tenth, which is slower than the previous year's pace. Still, outbound shipments of goods will keep growing to match rising global demand, the WBF said.

Imports are also expected to grow by a tenth.

Looking ahead, the WBF flagged the succeeding tax reform packages, proposals to ease foreign ownership limits under the Constitution, and the rebuilding of Marawi as the three key policy developments that would affect the Philippines in 2018.

"Generally, these are positive influences, although their impact on the economy could vary in significance depending on how they play out," the report noted.



**ERRATUM**

In the Invitation to Bid advertisement of the ISLAMIC MUNICIPAL GOVERNMENT OF TAMPARAN, LANAO DEL SUR which was published last February 23, 2018, item no. 5 should have been "A complete set of Bidding Documents may be purchased by interested Bidders from **March 9 - 23, 2018** and the Pre-Bid Conference will on **March 9, 2018**."

Our apologies.

**BW**

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**BATTLE OF THE SUPREME: Team Pineapple vs. Team Anti-Pineapple**

"Pineapples on a pizza?" is one of the age-old most controversial food-related argument and becomes a subject for an internet debate, as vocal critics and supporters made memes and various posts which has taken both sides. The pineapple-on-a-pizza flavor or Hawaiian pizza was first created in 1962 by Sam Panopolous at the Satellite Restaurant in Toronto, Canada, from then it became a popular pizza topping and also a target of dislike for others.

As the debate continues worldwide, SANTINO'S SUPREME SLICE creates a platform to a friendly yet interesting competitive debate for all pizza lovers on its very first Battle of the Supreme: Team Pineapple vs. Team Anti-Pineapple Campaign, this is a series of dare battle videos between two teams that will be uploaded on the Official Facebook Page of SANTINO'S SUPREME SLICE starting this February 14, 2018. Each representative of the team must accomplish the dare to score a point. The team with the highest total points will be the winner! Supreme pizza lovers out there can show their support by buying SANTINO'S SUPREME SLICE Hawaiian Madness for Team Pineapple and SANTINO'S SUPREME SLICE Non Pineapple Flavors for Team Anti-Pineapple. Are you a forever fan of Team Pineapple or you'll stick being in Team Anti-Pineapple? Who do you think will reign SUPREME? Be part of the BATTLE OF THE SUPREME by visiting the SANTINO'S SUPREME SLICE Official Facebook Page.

SANTINO'S SUPREME SLICE is the Philippines' fastest growing pizza kiosk chain with over 200 SUPREME outlets nationwide. For SUPREME business opportunity, reach us thru these hotlines: Manila (02) 411-9444; Cebu (032) 520-8811, Davao (082) 295-7943 or 0925-511-9444. Like us on Facebook: facebook.com/SantinosSupremeSliceOfficial/ for more supreme updates. CAST your vote now! Which SLICE are you on?





**NOTICE OF APPLICATION FOR DESIGNATION OF TOURISM ENTERPRISE ZONE (TEZ)**

This serves as a notice to the public that LA JOLLA is applying for TEZ Designation from the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) with the following details:

Name of Project	: La Jolla
Description	: General Leisure Tourism Zone
Area	: 16.7464 hectares
Location	: Brgy. Banawang, Bagac, Bataan

Anyone who has interest/claim or personal knowledge of any interest/claim on the property/properties may notify TIEZA until such time that the property has been designated as TEZ, through the following contact details:

**TEZ MANAGEMENT SECTOR**  
Tourism Infrastructure and Enterprise Zone Authority (TIEZA)  
8th floor 142 Amoroso St, Legaspi Village, Makati City  
tez.secretariat@gmail.com